Mobile menace

Visitors to the world athletics championships in Finland have had to brave not only the weather, but the real possibility of catching the world's first mobile phone virus. Officials in Nokia's home Finland, said there had been outbreaks of the Cabir virus at Helsinki's Olympic Stadium, reports Silicon.Com

Jarmo Koski, a security official at telecoms firm TeliaSonera, said: "At most we are speaking about dozens of infections, but during a short period and in one spot this is a huge number."

Cabir, reported in June 2004, uses Bluetooth short range wireless signals to jump from mobile phones, meaning it can spread over distances of up to 10 metres (30ft). In a packed stadium that could iinvolve dozens of phones.

Cabir drains the power of the infected phone as it tries to replicate itself onto nearby mobiles, but the most damaging viruses could disable a phone, requiring a factory reset.

The recipient needs to accept a download to be infected and, while telecoms security officials say the risk of catching a mobile virus is small, thousands of phones have already been hit around the world.

Antti Vihavainen, head of the mobile unit at antivirus software firm F-Secure, said: "There must be a lot of infected phones at the stadium and a lot of Bluetooth traffic. It is the early version of Cabir, which can infect only one phone at a time. Later versions of Cabir are much more fierce."

Since it was invented, the virus has so far spread to more than 20 countries, from the United States to Japan and from Finland to South Africa. F-Secure said there are 55 viruses or other malicious programs spreading between mobile phones and other mobile devices.

LSV decreases NOx

Air Products and John Zink Company, LLC have signed a license agreement for Air Products' patented Large Scale Vortex burner technology.

The LSV burner technology is designed to significantly decrease nitrous oxide (NOx) air emissions and provide environmental and operational benefits in industrial combustion applications.

The license agreement applies to retrofitting of existing hydrogen and syngas plants, and new and retrofitted methanol and ammonia plants. Air Products still reserves all rights to use LSV burners exclusively in new hydrogen and syngas production installations.

"We wanted to work with someone very prominent in the combustion industry," said Bob Davis, director of technology commercialisation, Energy and Process Industries, at Air Products.

"We've got a great technology, with environmental and operational benefits, but are not in the burner business. By licensing to John Zink we can fully leverage the advantages of this technology."

The LSV's competitive advantage is its ability to meet low NOx emission requirements in regulated regions.

This makes the added capital investment expense of a selective catalytic reduction unit for these combustion applications unnecessary.

Under the license agreement, Air Products will perform the process and detail design of the LSV burner for its selected applications. John Zink Company will handle the marketing, detailed mechanical design, manufacturing, and will interface directly with customers purchasing the Air Products technology.

At the heart of this new technology are a proprietary fluidic flame stabiliser and novel mixing nozzles, which enable the primary flame to operate at ultra-lean conditions. This new flame stabilising method requires very little fuel in the primary flame, which keeps temperatures low, thereby greatly reducing NOx emissions.

IME and EV Group develop Lab-on-a-Chip

EV Group has announced its Lab-on-a-Chip (LOC) research highlights achieved at their Singapore customer, Institute of Microelectronics.

IME is currently set on developing a fully integrated Lab-on-a-Chip, known as Micro Total Analysis System (μTAS), which performs the three functions of DNA/ RNA analysis - extraction, amplification (or multiplication) and detection in one chip. This is expected to be ready for commercial production in two to three years' time.

Throughout the past years, EV Group has supplied IME several wafer processing tools, an EVG620 Mask Aligner and EVG501 Bonder for 150mm wafer processing.

The new equipment for bonding silicon MEMS wafers to glass wafers are part of IME's new fully operational 200mm silicon MEMS wafer process line, completed last year.

This increases the yield of the large DNA chips by 3 times, compared to the prevous production process.

"Having IME as our longtime customer, we are excited to see their advances in the commercialisation of devices for the biomedical field," says Erich Thallner, CEO and founder of the EV Group.

Chip scale atomic clock development

Symmetricom Inc has been awarded $3.4m, funding for Phase-III of the DARPA Chip Scale Atomic Clock program.

The development will produce miniature, low power atomic clocks for precision timing applications in hand-held battery-powered instrumentation for use by military personnel.

Symmetricom will develop these based on its proprietary coherent population trapping atomic interrogation technology and using MEMS fabrication techniques.

It is teamed with The Charles Stark Draper Laboratory in Cambridge Massachusetts and Sandia National Laboratories in Albuquerque, New Mexico in the development.

The work leverages Symmetricom's extensive expertise as the world's largest and most diverse producer of atomic clocks.

Symmetricom has met DARPA milestones in Phase I and II and will now reduce size and power ten fold in Phase III.

Web:www.symmetricom.com